

SCHOOL AGE

Week

14

Smart Activities



SMART CHOICE. SMARTER CHILD.®

Measuring Up

Materials: stick (yardstick works best), a friend

Instructions:

Trees are the giants of the plant world, but just how big are they? The tallest trees are the redwoods that are native to California. The tallest on record is over 360 feet high!

You can find out how tall trees are with a simple trick that involves two people, so grab a family member to help. Have someone hold a stick upright on the ground about 60 feet away from a tree you want to measure.

A yardstick will work just fine. Position yourself about 6 feet further away and lie close to the ground. Look where the top of the tree comes to on the yardstick. Ask your helper to mark that point on the stick. Direct your helper to move his/her hand down the stick until you say "stop"! The height of the tree will be about ten times the height marked on the stick! Pretty amazing trick!



Leaves of three, let it be!

Instructions:

The best way to deal with plants that cause allergic reactions (poison ivy, oak and sumac) is to avoid them.



"Leaves of three, let it be"
 "Berries white, run in fright"
 "Hairy vine, no friend of mine"

www.backyarddiva.ca

Poison ivy, poison oak, and poison sumac are sneaky little plants that usually grow low to ground in shrub-like clumps or appear as vines on other plants, especially trees. When walking in the woods, be careful not to touch these guys as they can leave a very unpleasant reminder of the encounter.

Remember the slogan: Leaves of three, let it be!

Fishing for Answers

Do fish have ears?

Have you ever considered the question - Do fish have ears? What do you think?

The answer is **no**, but fish do have tiny pores on either side of their bodies that detect vibrations and pressures changes. Fish don't have ears that we can see, but they do have ear parts inside their heads. They pick up sounds in the water through their bodies and in their internal ear, according to the National Wildlife Federation.

Additionally, a fish can sense movement in the water with the lateral lines that run down each side of its body. Sharks, which are fish, also have a keen ability to sense electricity.

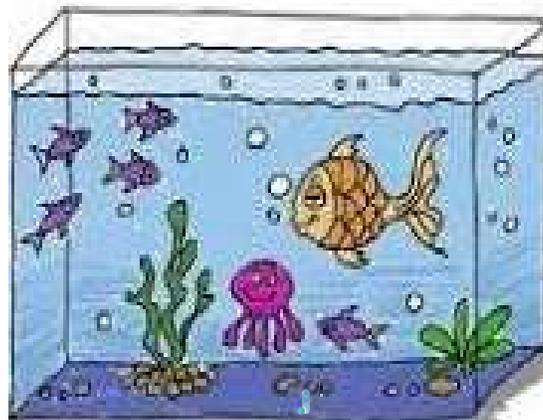
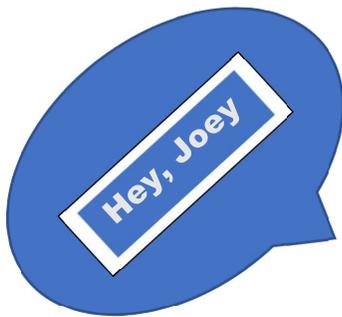
Do fish have eyelashes?

How about this question - do fish have eyelashes?

The answer is **no**. Some kinds of fish don't even have eyelids! Fish live in an environment that keeps their eyes wet, so they don't need eyelids to keep their eyes moist. This means fish don't even blink or close their eyes. The only exception is a shark, which has a membrane that works something like an eyelid. The membrane covers the shark's eyes when it feeds.

Can my pet fish recognize me?

As strange as it may sound, the answer is **yes**. A recent study reports that fish can tell a familiar human face from dozens of new faces with surprising accuracy.





Density Tower

Materials: water with food coloring, milk, honey, dishwashing liquid, vegetable oil, tall straight-sided glass, turkey baster or a spoon

Preparation: Pour each ingredient into separate small cups – about $\frac{3}{4}$ cup of each.

Instructions:

1. The first layer of the tower is honey. Carefully, pour the honey using the turkey baster into the empty container you have chosen as your tower. You'll need a steady hand to build the tower in neat layers, so go slowly through the steps. A turkey baster works best for transferring the ingredient liquids into the tower, but you can also pour each ingredient over the back of a clean spoon each time.
2. Next, put in the milk. Draw it up in a clean turkey baster and gently pour it against the side of the glass that has the honey settled in it. Remember to clean your utensils after every pour.
3. Next is the dishwashing liquid. Make this layer just as you did in step 2.
4. Your next layer is the colored water. Make it a contrast color to the dishwashing liquid. Use the same procedure used for the layers you have already completed.
5. Finally, add the vegetable oil. Interestingly, if you had added the oil first, instead of last, it would have risen to the top of every other liquid. What do you think this reveals about its density?

If You're Really Careful:

Gently drop in some small objects - a cherry tomato, ping pong ball, small bolt, etc. and see what happens.

How All This Works!

Although water molecules crowd closely together, each one has low mass, so water's density is fairly low. When substances dissolve in water, their molecules fill in between the water molecules increasing the solution's density (honey, milk, dishwashing liquids). Oil molecules are bigger and do not pack together so tightly, which means it has a low density enabling it to be the top layer of the density tower.

Apply Your Knowledge:

Sometimes, tanker ships carrying oil have accidents and spill oil in the ocean. This is terrible for sea life, and an oil spill is difficult to clean up. What makes this task a bit easier? To answer, think about the density of oil versus the density of the ocean water. Would the oil float?



WEIRD! The Musical

Materials: internet access, website: <https://youtu.be/Nib7HOUEdrs>

WEIRD! THE MUSICAL, a sneak peek behind the scenes

Instructions

This musical is made especially for school age children. This age group can easily relate to the cast of players as each child actor has a unique experience learning how to face challenges navigating through life. Eventually, the characters learn to cope with peers (who are not so nice) with the help of their families and friends.

The musical is based on the *Weird* book series by Erin Frankel and illustrated by Paula Heaphy. This series consists of three books and tells a story of school bullying from the point of view of each of the children involved: one who is being bullied (Weird!), a bystander (Dare!), and one using bullying behavior (Tough!).

In the video (see above website), Shawn Forster, artistic director of *Peaceful Schools Productions*, shares an overview of the musical and offers viewers sneak peeks.

Read the book series or tune in with friends and family to learn - **You are not alone**. Everyone faces challenges. It's how you handle the challenges, that really counts!



KIDZ Bop Dance Tutorial: Can't Stop the Feeling!

Materials: internet access, website: <https://youtu.be/Ojblhvzvjsk>

Preparation: An adult will need to help with the internet.

Instructions:

Follow along with the video for a full dance tutorial. Here are the moves broken down into steps:

- Jump left and right four times making box shape with arms in opposite direction and keeping knees high. Brush each shoulder two times while bending knees ("dance, dance, dance, dance").
- Step out with right foot and double pump arms down to the right.
- Return to straight position and single pump to the left. Return to straight position.
- Repeat the brush shoulders move but only do one on the left shoulder and step forward with left foot and put arms up with elbows bent ("Come on!").
- Start from the beginning and practice all the moves together.

Once this feels comfortable, move on to the next section:

- Step right while flicking hands out to the left (called the "Janet Jackson" step).
- Repeat same steps out to the left.
- Next, do a simple box step and add hand moves.
- Jump to the right twice while pumping left hand (called the "Reebok Step"). Repeat to the left while pumping right hand.
- Slide right foot and put left foot behind, pumping arms crossed in front. Slide left foot and put right foot behind while pumping arms in front.
- End with the "Come on!" step.

Put it all together with the music. Who else can you teach it to? Make a video and share with friends and family!



Found Object Color Wheel Challenge

Materials: any found objects from around the house

Preparation: Say, "I promise to put everything back where I found it!"

Instructions:

Art is everywhere! Even in everyday objects. In this challenge, you will recreate the color wheel using items found around the home. Here is the catch, though - you have to put it all back.

A color wheel is basically the rainbow colors in a circle. **Rainbow:** Any display of the spectrum of colors made from rays of light being dispersed. The colors of a rainbow from outside to inside are red, orange, yellow, green, blue, indigo, violet (ROY G BIV).

See here to download an extra color wheel challenge: <https://www.chesapeakearts.org/cacblog/colorwheel>



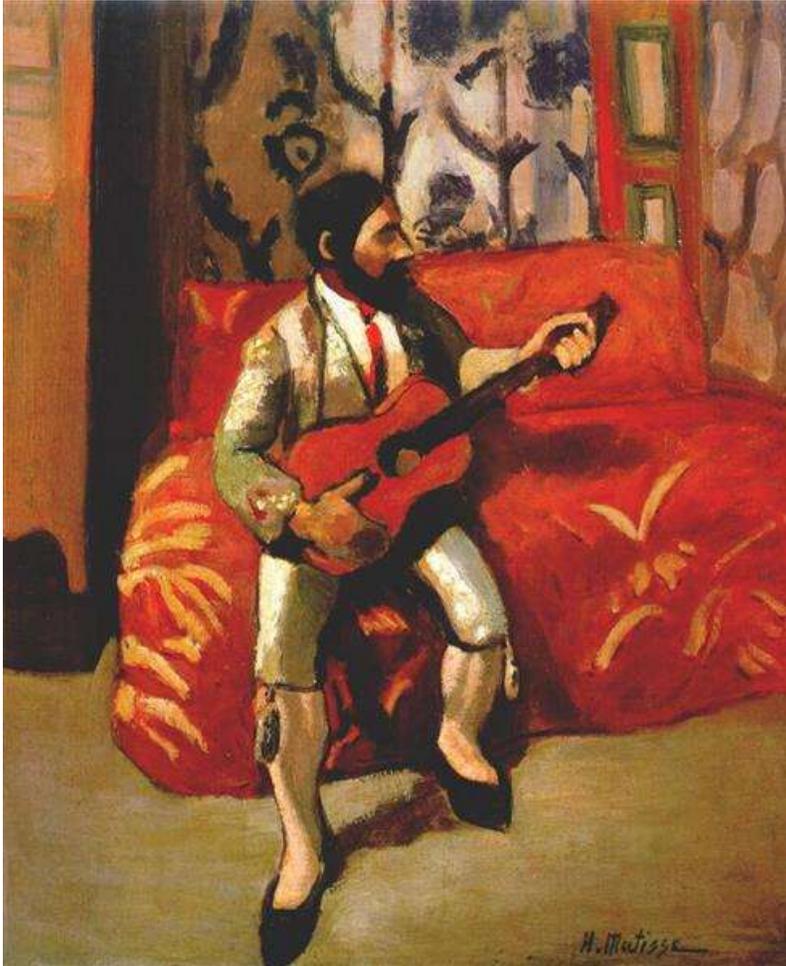
How Do Colors Feel?

Materials: paper, pencil/pen, How Do Colors Feel? Handout: Comparing Paintings – Matisse and Picasso

Instructions:

1. Spend a few minutes observing the two paintings on the handout.
2. Compare the two paintings using the following questions and write your thoughts below or on another piece of paper:
 - a) Describe all the things that are similar in the two paintings.
 - b) What do you see that is different?
 - c) How do you describe the colors in the painting on the left? Can you use any 'feelings' words?
 - d) How do you describe the colors painting on the right? Can you use any 'feelings' words?
 - e) Do you like one painting more than the other? Can you explain why?
3. Choose one of the paintings and write a short letter to the person who is shown. Try to match the feelings you get from the painting using your words.

How Do Colors Feel?



<https://www.wikiart.org/en/henri-matisse/guitarist-by-henri-matisse-1903>



<https://www.wikiart.org/en/pablo-picasso/the-old-blind-guitarist-1903>

Meet the Beetles

Materials: internet access, website: <https://thekidshouldseethis.com/post/stuart-hine-bug-identification>

Preparation: An adult will help with the internet.

IMPORTANT Do not handle any insects or spiders on your own!

Instructions:

Imagine opening up a box to find... a huge stag beetle!

Using the website above, check out this entertaining video with the person in charge of identifying bugs that people bring into the Natural History Museum in London. He finds himself visiting with some very unique creatures!

Vocabulary:

Formidable - causing fear or awe

Mandible - a pair of mouth parts on an insect used for biting

Aggressive - angry or forceful behavior



Watch the video and consider the following:

Stag Beetle – Can you describe the special features that the males have?

Long-horned Beetle – Where did this beetle come from? Can you describe how it protects itself?

Tube Web Spider – How does it create its web? Can you describe how it hunts its prey?

Extension:

See this video for some beautiful insect art by a teenage youth ambassador about the importance of conserving ecosystems and species:

<https://thekidshouldseethis.com/post/natures-vanishing-trick>



Finish the Picture

Materials: pencil, eraser, colored pencils or crayons/markers

Preparation: Radial symmetry - an imaginary line that equally divides an organism in the center from the top to the bottom

Instructions:

Spend a few minutes observing the details of each insect. What do you notice about the shapes, colors, textures, and values? Lightly sketch the other side of the insect in pencil to complete the full image. Finish the picture by using colored pencils, crayons, and markers (or a combination of these) to fill in the colors, textures, and values.



Finish the Picture



Birding: Watching and Observing Birds

Materials: internet access, website: <https://www.youtube.com/watch?v=4WFwXZVX4bo>

Preparation: Preview the video.

Instructions:

Watch the video at the link above.

After the video is over, consider the following questions:

- Have you ever heard of bird watching or birding before?
- Where can you start birdwatching?
- What do you think will attract birds near you? Water? Bird feed?
- Do you have any books at home about birds? Or apps on your phone or tablet? With the help of an adult, you can download "Audubon Bird Guide" for free and even family share with other members of your family.

Try out birdwatching and see if you like it! Some things to have handy when watching for birds:

- A notebook to write down any colors or markings you see on birds, how many birds you saw, and any other information you would like.
- Bird feeder or bird bath outside can attract birds but you don't need to have those in your outdoor space to watch for birds. You can make easy cheerio bird feeders yourself to hang outside on a tree or plant. Just watching in the trees and sky above you, you will see many birds coming and going!
- A book or application to help you identify the birds you see. This will help you recognize birds and learn interesting facts about them.

If bird watching is interesting to you, make it a hobby! Talk with your family, they may want to join you on the fun!



DIY Binoculars

Materials: two small cardboard tubes or one large cardboard tube, various colored paper, stickers, string or yarn, glue, tape, 2 paperclips

Instructions:

1. If you are using a large towel tube, cut it in half to make two identical sized tubes. Decorate your cardboard rolls. Wrap them with paper and secure using glue or tape. Make sure to let your tubes dry thoroughly before moving on. You can decorate with markers or stickers to create your perfect design!
2. Using glue, attach string or yarn around each end of your tubes. Allow this to dry. Now, glue together your tubes by running glue the length of the tube and attaching the other tube to it. Place a paperclip on each end pinching both tubes together as the glue dries.
3. Once your binoculars are dry, poke a small hole on the outside of each tube. Using a long piece of string/yarn, thread one side of the string/yarn into one of the holes, double knotting it. Repeat the same with the other hole and the other side of the string/yarn.
4. Your DIY binoculars are now ready for your next adventure!



Cooking: S'mores Banana Boat

***CAUTION:** Wash hands for 20 seconds before and after this activity. Replace any ingredients based on possible allergies.

Materials: large banana, mini marshmallows, chocolate chips, graham crackers, foil, plastic knife

Preparation: *An adult will help with this project.

Instructions:

1. Preheat the oven to 350 degrees.
2. Peel your banana. Make a shallow cut into your banana running the length of it. Be careful not to cut all the way through. You just want to cut enough to stuff it with your remaining ingredients.
3. Place your banana on a large piece of foil.
4. In the slit you made in the banana, fill it with some mini marshmallows and chocolate chips. If you don't have one of those ingredients, it is ok. Just use the ones you have available. Feel free to add any other toppings you would like.
5. Wrap the banana in the foil and tent the top. This will keep the marshmallows and chocolate chips from melting to the foil.
6. Have an adult place it in the oven for about 5-6 minutes.
7. With the help of an adult, take it out of the oven and open up the foil. If it looks good and melted, add crumbled graham cracker on top. Let it cool and then enjoy!

